

SPECIFICATION AMENDMENTS:

Please replace the paragraphs starting on page 1, line 11 through page 3, line 2 with the following amended paragraphs:

--Applications relative to optical interface technology, such as optical pointing devices, have become increasingly popular. For example, conventional and optical pointing devices and optical pens are successful applications of apparatuses employing optical sensor technology. As the demand increases for functions, mobility and small size of the optical apparatuses, it becomes a challenge to product such apparatuses with impact size, high accuracy, simple assembling processes and low cost of assembling.

With respect to the conventional optical pointing devices and optical pens, mobility increases with reduced size such that they are more convenient, particularly for use with mobile computers. Moreover, as the conventional optical apparatus generally includes a plurality of internally disposed optical components (lenses, sensor and optical guiding mechanisms), various types of packaging technology can be applied thereto. Generally, the optical components are assembled before being packaged inside the product. As the number of functions and components increase, however, the optical apparatus package inevitably trends toward integration and modulization to save space.

FIG. 1 is a sectional view of a conventional optical pen. As shown in FIG. 1, a conventional optical pen 1 is applied to an object surface 2. The displacement relative to the object surface 2 can be sensed by an optical sensor 6

receiving light reflected by the object surface 2. As shown in FIG. 1, the optical pen 1 has a light emitting diode (LED) 3 emitting light which passes through a light guiding mechanism 4. The light guiding mechanism 4 comprises a first light guiding element 41 and a second light guiding element 42. The arrow in FIG. 1 shows the path of light emitted from the light emitting diode (LED) 3 as it passes through the first and second light guiding elements 41 and 42 sequentially, and is projected on the object surface 2 under a lens 5 such that the reflected light is easily received by the optical sensor 6. Particularly, the sensor 6 is disposed above the lens 5 and is capable of efficiently guiding the reflected light to the sensor 6.

With respect to the conventional mechanism of an optical apparatus as mentioned above, however, the light emitting diode (LED) 3, the light guiding mechanism 4 and the lens 5 are independently installed in the optical pen 1 and occupy a large space due to the component components' size. Additionally it is difficult to install the components in the small space provided by the package with a high degree of accuracy and sensitivity.--

Please replace the paragraph bridging pages 5 and 6 with the following amended paragraph:

--As the arrow shown shows in FIG. 3, light emitted from the light emitting diode (LED) 15 passes through the light guiding element 16 and projects on the object surface 17 under the lens 18. Referring to FIG. 4, the light guiding element

16 can guide and reflect light in a specific direction, wherein the arrow indicates the direction of light. The light guiding element 16 comprises a convex 161 and a reflecting surface 162 such that light emitted from the light emitting diode (LED) 15 enters the convex 161 then reflects via the reflecting surface 162, wherein the convex 161 is capable of gathering and guiding light to the reflecting surface 162 without light dissipation. Thus, light can pass through the convex 161 and reflect via the reflecting surface 162 in a specific direction.--